In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A segmented labyrinth seal having a windback configuration formed around a rotatable shaft for preventing leakage ~~of oil from a bearing housing~~, comprising:

a first face and a second face;

an exterior cylindrical surface and an interior cylindrical surface each extending between said first face and said second face;

a thread pattern provided on said interior cylindrical surface selectively configured in a right-hand direction and a left-hand direction, said thread pattern providing the windback configuration;

said thread pattern being formed of a plurality of profiled teeth, said plurality of profiled teeth having first sides, second sides, and connecting sides extending between said first sides and said second sides, wherein leading edges are formed where said first sides join said connecting sides and trailing edges are formed where said second sides join said connecting sides, said first sides and said second sides being slanted toward said second ~~first~~ face, and a pressure drop is taken over said plurality of profiled teeth; and

a channel tracing said thread pattern formed between said first sides and said second sides of adjacent teeth of said plurality of profiled teeth, said channel adapted to capture the oil from the bearing housing, and to return said oil to said bearing housing without the need for axial drain holes.

2. (Original) A segmented labyrinth seal according to claim 1, wherein said first sides have a steeper incline with respect to said interior cylindrical surface than said second sides.

3. (Original) A segmented labyrinth seal according to claim 2, wherein said first side and said second side respectively form first and second angles that are oblique with respect to said interior cylindrical surface, said first angle being greater than said second angle.

4. (Original) A segmented labyrinth seal according to claim 1, wherein said first face is adjacent the exterior of the bearing housing and the second face is adjacent the interior of the bearing housing, the pressure drop being from a higher pressure near said second face to a lower pressure near said first face which is divided over each tooth of said plurality of profiled teeth.

5. (Original) A segmented labyrinth seal according to claim 4, wherein said pressure drop is divided into various intermediate pressures between said adjacent teeth of said plurality of profiled teeth, wherein said intermediate pressures are highest near said second face.

6. (Original) A segmented labyrinth seal according to claim 1, wherein said thread pattern has said right-hand direction when the rotatable shaft is rotating clockwise when looking down the rotatable shaft toward the bearing housing and has a left-hand direction when the rotatable shaft is rotating counter-clockwise when looking down the rotatable shaft toward the bearing housing.

7. (Original) A segmented labyrinth seal according to claim 6, wherein said segmented labyrinth seal is formed from two half-circle shaped segments, said segments having first and second ends, said first ends abutting one another and said second ends abutting one another when said segmented labyrinth seal is assembled.

8. (Original) A segmented labyrinth seal according to claim 7, wherein said first and seconds ends of one of said two half-circle shaped segments are

respectively provided with first and second split-line pins and said first and second ends of the other of said two half-circle shaped segments are respectively provided with first and second holes, said first hole receiving said first split-line pin and said second hole receiving said second split-line pin when said segmented labyrinth seal is assembled, and the position of said first hole and said first split-line pin is staggered in relation to said second hole and said second split-line pin depending on said selective configuration of said thread pattern in said right-hand direction and said left-hand direction.

9. (Original) A segmented labyrinth seal according to claim 8, wherein at least one of said two half-circle shaped segments is provided with an anti-rotation pin, said anti-rotation pin being positioned at the apex of said at least one of said two half-circle shaped segments.

10. (Original) A segmented labyrinth seal according to claim 1, wherein said plurality of profiled teeth have a vertical tooth height, and said vertical tooth height is chosen to allow for a primary flow of said oil directed to said bearing housing in said channel.

11. (Original) A segmented labyrinth seal according to claim 10, wherein said vertical tooth height is chosen to prevent a secondary flow of said oil in an opposite direction to said primary flow in said channel.

12. (Original) A segmented labyrinth seal according to claim 11, wherein said vertical tooth height ranges from about 0.0625 to 0.1250 inches, and said plurality of profiled teeth have a radial clearance of about 0 to 3 mils from the rotatable shaft.

13. (Currently Amended) A segmented labyrinth seal having a windback configuration formed around a rotatable shaft for preventing leakage ~~of oil from a bearing housing~~, comprising:

a first face and a second face;

an exterior cylindrical surface and an interior cylindrical surface extending between said first face and said second face;

a thread pattern provided on said interior cylindrical surface selectively configured in a right-hand direction and a left-hand direction, said thread pattern providing the windback configuration;

said thread pattern being formed of a plurality of profiled teeth, said plurality of profiled teeth having first sides, second sides, and connecting sides extending between said first sides and said second sides, said plurality of profiled teeth having a vertical tooth height, and leading edges formed where said first sides join said connecting sides and trailing edges formed where said second sides join said connecting sides, said first sides and said second sides slanted toward said second ~~first~~ face, wherein a pressure drop is taken over said plurality of profiled teeth, said pressure drop being from a higher pressure near said second face to a lower pressure near said first face; and

a channel tracing said thread pattern formed between said first sides and said second sides of adjacent teeth of said plurality of profiled teeth, said channel adapted for capturing the oil from the bearing housing, and returning said oil to said bearing housing without the need for axial drain holes, wherein said vertical tooth height of said plurality of profiled teeth prevents said pressure drop from having adverse effects on the performance of said segmented labyrinth seal.

14. (Original) A segmented labyrinth seal according to claim 13, wherein said pressure drop is divided into various intermediate pressures between said adjacent teeth of said plurality of profiled teeth, wherein said intermediate pressures are highest near said second face.

15. (Original) A segmented labyrinth seal according to claim 13, wherein said first sides have a steeper incline with respect to said interior cylindrical surface than said second sides.

16. (Original) A segmented labyrinth seal according to claim 15, wherein said first side and said second side respectively form first and second angles that are oblique with respect to said interior cylindrical surface, said first angle always greater than said second angle.

17. (Original) A segmented labyrinth seal according to claim 13, wherein said vertical tooth height of said plurality of profiled teeth is chosen to allow for a primary flow of said oil directed to the interior of the bearing housing in said channel.

18. (Original) A segmented labyrinth seal according to claim 13, wherein said vertical tooth height is chosen to prevent a secondary flow of said oil in an opposite direction to said primary flow.

19. (Currently Amended) A segmented labyrinth seal having a windback configuration formed around a rotatable shaft for preventing leakage ~~of oil from a bearing housing~~, comprising:

two half-circle shaped segments having first and second ends and forming a cylindrical shape, said first ends abutting one another and said second ends abutting one another when said two half-circle shaped segments are assembled to form the segmented labyrinth seal;

an exterior cylindrical surface and an interior cylindrical surface, said exterior cylindrical surface and said interior cylindrical surface extending between a first face and a second face;

a thread pattern provided on said interior cylindrical surface selectively configured in a right-hand direction when the rotatable shaft is rotating clockwise when looking down the rotatable shaft toward the bearing housing and in a left-hand direction when the rotatable shaft is rotating counter-clockwise when looking down the rotatable shaft toward the bearing housing;

first and second split-line pins respectively located on said first and second ends of one of said two half-circle shaped segments, and first and second holes respectively provided on said first and second ends of the other of said two half-circle shaped segments, said first hole receiving said first split-line pin and said second hold receiving said second split-line pin when the segmented labyrinth seal is assembled, wherein the position of said first hole and said first split-line pin is staggered in relation to said second hole and said second split-line pin depending on said selective configuration of said thread pattern in said right-hand direction and said left-hand direction;

said thread pattern being formed by a plurality of profiled teeth, said plurality of profiled teeth having first sides, second sides, and connecting sides extending between said first sides and said second sides, said plurality of profiled teeth having a vertical tooth height, and leading edges formed where said first sides join said connecting sides and trailing edges formed where said second sides join said connecting sides, said first sides and said second sides respectively forming first and second angles that are oblique with respect to said interior cylindrical surface, said first angle always being greater than said second angle, wherein a pressure drop is taken over said plurality of profiled teeth, said pressure drop being divided into various intermediate pressures between adjacent teeth of said plurality of profiled teeth; and

a channel tracing said thread pattern, said channel being wound in a direction opposite to the rotational direction of the rotatable shaft, said channel adapted for capturing the oil from said bearing housing, and returning said oil to said bearing housing without the need for axial drain holes, said vertical tooth height of said plurality of profiled teeth chosen to allow for a primary flow of said oil directed to said bearing housing in said channel, and to prevent secondary flow of said oil in an opposite direction to said primary flow in said channel.

20. (Original) A segmented labyrinth seal according to claim 19, wherein at least one of said two half-circle shaped segments is provided with an anti-rotation pin, said anti-rotation pin positioned at the apex of said at least one of said two half-circle shaped segments.